

Double-Strangeness Molecular-Type Pentaquarks from Coupled-Channel Dynamics

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The existence of pentaquarks with strangeness content zero and one are major discoveries of the latest years in hadron physics. Most of these states can be understood as hadronic molecules and were predicted prior to their discovery within a model based on unitarized meson-baryon amplitudes obtained from vector meson exchange interactions. Contrary to earlier statements, we show this model to also predict the existence of pentaquarks with double strangeness, at about 4500 MeV and 4600 MeV, which are generated in a very specific and unique mechanism, via an attraction induced by a strong coupling between the two heaviest meson-baryon states.

Primary authors: RAMOS, Angels (University of Barcelona); MARSÉ-VALERA, J.A.; MAGAS, Volodymyr (University of Barcelona, Spain)

Presenter: RAMOS, Angels (University of Barcelona)

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